No. 02-1741

(3)

Supreme Court, U.S.
FILED
JUL 29 2003
OFFICE OF THE CLERK

IN THE

Supreme Court of the United States

REGINA D. MCKNIGHT,

Petitioner,

v.

STATE OF SOUTH CAROLINA,

Respondent.

On Petition for Writ of Certiorari to The Supreme Court of South Carolina

BRIEF OF *AMICI CURIAE* AMERICAN PUBLIC HEALTH ASSOCIATION, AMERICAN NURSES ASSOCIATION, AMERICAN PSYCHIATRIC ASSOCIATION, NATIONAL STILLBIRTH SOCIETY, NATIONAL ASSOCIATION OF SOCIAL WORKERS, SOUTH CAROLINA MEDICAL ASSOCIATION, AMERICAN SOCIETY OF ADDICTION MEDICINE, NATIONAL ASSOCIATION OF NURSE PRACTITIONERS IN WOMEN'S HEALTH, MIDWIVES ALLIANCE OF NORTH AMERICA, SOUTH CAROLINA PRIMARY HEALTH CARE ASSOCIATION, PHYSICIAN LEADERSHIP ON NATIONAL DRUG POLICY, NAADAC: THE ASSOCIATION OF ADDICTION PROFESSIONALS, ASSOCIATION OF MATERNAL AND CHILD HEALTH PROGRAMS IN SUPPORT OF PETITIONER
[additional *Amici* listed on inside front cover]

JUDITH K. APPEL
DANIEL N. ABRAHAMSON*
DRUG POLICY ALLIANCE
717 Washington Street
Oakland, CA 94607
(510) 208-7711

Attorneys for *Amici Curiae*
**Counsel of Record*

42 pp

ADDITIONAL *AMICI*

BLACK WOMEN'S HEALTH IMPERATIVE,

ASSOCIATION OF REPRODUCTIVE HEALTH PROFESSIONALS,

NATIONAL COUNCIL ON ALCOHOLISM AND DRUG DEPENDENCE,

SOUTH CAROLINA NURSES ASSOCIATION,

SOUTH CAROLINA ASSOCIATION OF ALCOHOL AND DRUG ABUSE COUNSELORS,

CITIZENS FOR MIDWIFERY,

HYGEIA FOUNDATION, INC.,

INSTITUTE FOR HEALTH AND RECOVERY,

AMERICAN ACADEMY OF ADDICTION PSYCHIATRY,

GLOBAL LAWYERS AND PHYSICIANS,

PHYSICIANS FOR REPRODUCTIVE CHOICE AND HEALTH,

DOCTORS OF THE WORLD,

WOMEN'S LAW PROJECT,

FINDING COMMON GROUND, MAILMAN SCHOOL OF PUBLIC HEALTH, COLUMBIA UNIVERSITY

Table of Contents

Table of Authorities iii

Interests of *Amici Curiae* 1

Introduction 1

Reasons for Granting the Petition 3

I. Review Should Be Granted Because The McKnight Decision Threatens The Health Of All Child-Bearing Women In South Carolina 3

A. Given The Numerous Acts, Omissions And Conditions That Can Precipitate Stillbirth, The McKnight Decision Casts A Wide Net Of Potential Criminal Liability For Pregnant Women 4

B. The McKnight Decision Undermines Accepted Standards Of Care For Treating Women Who Suffer Stillbirth 8

II. Review Should Be Granted Because There Is No Reliable Medical Evidence That Ms. McKnight's Cocaine Use Caused Her Stillbirth 11

A. The Record Fails To Support South Carolina's Claim That Cocaine Caused McKnight's Stillbirth 11

B. There Can Be No "Public Knowledge" Of The Effects Of Prenatal Cocaine Ingestion When Medical And Scientific Research Is Inconclusive On This Point.... 15

III. Review Should Be Granted Because The McKnight Decision Will Deter Women From Obtaining Adequate Prenatal Health Care 16

Conclusion 20

Appendix

TABLE OF AUTHORITIES

Cases

Automobile Workers v. Johnson Controls, 499 U.S. 187 (1991) 6

Ferguson v. City of Charleston, South Carolina, 532 U.S. 67 (2001) 19

Jaffee v. Redmond, 518 U.S. 1 (1997) 18

State of South Carolina v. Regina D. McKnight, 576 S.E. 2d 168 (2002) ..... passim

Other Authorities

Addis, A. et al., *Fetal Effects of Cocaine: An Updated Meta-Analysis*, 15 Reprod. Toxicology 341 (2001)..... 12

American Academy of Pediatrics & American College of Obstetricians and Gynecologists, *Guidelines for Perinatal Care* 202 (4th ed. 1997) 11, 12

American Academy of Pediatrics, Committee on Substance Abuse, *Drug-Exposed Infants*, 86 Pediatrics 639 (1990). 19

American Medical Ass'n, *Legal Intervention During Pregnancy*, 264 JAMA 2663 (1990) 19

American Nurses Ass'n, *Position Statement* (Apr. 5, 1992) 20

American Psychiatric Ass'n, *Care of Pregnant and Newly Delivered Women Addicts: Position Statement* (March 2001) 20

American Society of Addiction Medicine, Board of Directors, *Public Policy Statement on Chemically Dependent Women and Pregnancy* (September 25, 1989) 19

Armstrong, M.A. et al., *Perinatal Substance Abuse Intervention in Obstetric Clinics Decreases Adverse Neonatal Outcomes*, 23 J. Perinatology 3 (2003)..... 18

Arnold, R. et al., *Medical Ethics and Doctor/Patient Communication, in The Medical Interview: Clinical Care, Education and Research* 365 (M. Lipkin, Jr. et al. eds., 1995)..... 18

Baca, K., *South Carolina spends the least on substance abuse prevention*, Associated Press State and Local Wire, Jan 29, 2001..... 17

Bernstein, J.G., *Handbook of Drug Therapy in Psychiatry* (2d ed. 1988)..... 7

Bingol, N. et al., *Teratogenicity of Cocaine in Humans*, 110 J. Pediatrics 93 (1987)..... 12, 13

Bove, K.E. & The Autopsy Committee of the College of American Pathologists, *Practice Guidelines for Autopsy Pathology*, 121 Archives Pathology & Laboratory Med. 368 (1997) 12

Campbell, T.A. & Collins, K.A., *Pediatric Toxicologic Deaths: A 10 Year Retrospective Study*, 22 Am. J. Forensic Med. & Pathology 184 (2001)..... 14

Chasnoff, I., *Drug Use in Pregnancy: Parameters of Risk*, 35 Pediatric Clinics N. Am. 1403 (1988)..... 17

Curry, C. & Honoré, L.H., *A Protocol for the Investigation of Pregnancy Loss*, 17 Clinics in Perinatology 723 (1990) 12

DeFrain, J. et al., *The Psychosocial Effects of Miscarriage: Implications for Health Professionals*, 14(3) Fam. Sys. & Health 331 (1996)..... 8

Division of Biostatics, South Carolina Department of Health & Environmental Control, *Table 52: Fetal Mortality and Fetal Mortality Rate by Race of Mother*, [1998] 1 Annual Vital Statistics Series 107..... 5

Ebrahim, S. H. & Gfroerer, J., *Pregnancy-Related Substances Use in the United States During 1996-1998*, 101(2) Obstetrics and Gynecology 374 (February 2003). 18

Eisenberg, A. et al., *What To Expect When You're Expecting* (2d ed. 1996)..... 9

Frank, D. et al., *Growth, Development, and Behavior in Early Childhood Following Prenatal Cocaine Exposure: A Systematic Review*, 285 JAMA 1613 (2001)..... 13, 15, 16

Fretts, R. et al., *Increased Maternal Age and the Risk of Fetal Death*, 333(15) New Eng. J. Med. 953 (1995)..... 6

Friedman, L., *A Woman Doctor's Guide to Miscarriage*, at xi-xii (Laurie Abkemeier ed., Hyperion 1996)..... 5, 9

Gaston, E., *Conway Homicide Case Sets Precedent*, The Sun News (Myrtle Beach, SC) May 19, 2001 4

Geerinck-Vercammen, C.R., *With a Positive Feeling: The Grief Process After Stillbirth in Relation to the Role of Professional Caregivers*, 87 Eur. J. Obstetrics & Gynecology and Reproductive Biology 119 (1999)..... 10

Hammersley, L. & Drinkwater, C., *The Prevention of Psychological Morbidity Following Perinatal Death*, 47 British Journal of General Practice 583 (September 1997) 8

Honein, M.A. et al., *Continued Occurance of Accutane-Exposed Pregnancies*, 64 Teratology 142 (2001) 7

Janssen, H. et al., *Controlled Prospective Study on the Mental Health of Women Following Pregnancy Loss*, 153 Am. J. Psychiatry 226 (February 1996) 8

Jones, K.L., *Smith's Recognizable Patterns of Human Malformation* 495 (J. Fletcher ed., 5th ed. 1997)..... 7

Kluger-Bell, K., *Unspeakable Losses* 146 (New York, WW Norton & Co. 1998)..... 10

Langhorne, T., *Solicitor: Woman's Cocaine Use Killed Fetus*, Spartanburg Herald Journal, May 3, 2003 19

Layne, L., *Motherhood Lost: Cultural Dimensions of Miscarriage and Stillbirth in America*, 16(3) Women & Health 69 (1990)..... 9

Malacrida, C., *Complicating Mourning: The Social Economy of Perinatal Death*, 9(4) Qualitative Health Research 504 (July 1999)..... 5

March of Dimes, *Statement on Maternal Drug Abuse* (Dec. 1990)..... 19

The Merck Manual of Diagnosis and Therapy (R. Berkow ed., 16th ed. 1992)..... 7

Morild, I. & Stajc, M., *Cocaine and Fetal Death*, 47 Forensic Sci. Int'l 181 (1990) 16

National Association of Public Child Welfare Administrators, *Guiding Principles for Working with Substance-Abusing Families and Drug-Exposed Children: The Child Welfare Response* (Jan. 1991) 19

National Center for Health Statistics, Center for Disease Control, *Births: Final Data for 2000*, 50(5) National Vital Statistics Report 27 (2002) *at* http://www.cdc.gov/nchs/data/nvsr/nvsr50/50_05_01.pdf 4

National Center for Health Statistics, Center for Disease Control, *Table 23: Infant Mortality Rates, in Health, United States, 2002* (2002) *available at* http://www.cdc.gov/nchs/data/hus/tables/2002/02hus023.pdf 4

National Council on Alcoholism and Drug Dependence, *Women, Alcohol, Other Drugs and Pregnancy* (1990) 20

Neugebauer, R. et al., *Association of Stressful Life Events With Chromosomally Normal Spontaneous Abortion*, 143 Am. J. Epidemiology 588 (1996) 6

Neugebauer, R. et al., *Major Depressive Disorder in the 6 Months After Miscarriage*, 277(5) JAMA, 383 (1997) 8

Organization of Teratology Information Systems, *Accutane (Isotretinoin) and Pregnancy* (2002) *at* www.otispregnancy.org/pdf/accutane.pdf 7

Peppers, L. G. & Knapp, R. J., *Maternal Reactions to Involuntary Fetal/Infant Death*, 43 Psychiatry 155 (May 1980) 8

Physician's Desk Reference (57th ed. 2003) 7

Rafsoon, E., *What Price Beauty*, Boston Globe, April 27, 2003 7

Rand, C.S.W. et al., *Parental Behavior After Perinatal Death: Twelve Years of Observations*, 19 J. Psychosomatic Obstetrics & Gynecology 44 (1998) 10

SHARE Pregnancy & Loss Support, Inc., *Report on Stillbirth Workshop at the National Institute of Health* (April 2001) *at* http://nationalshareoffice.com/SBWkspReport.asp ... 5, 6

Sims, M.A. & Collins, K.A., *Fetal Death: A 10 Year Retrospective Study*, 22 Am. J. Forensic Med. & Pathology 261 (2001) 5, 14

South Carolina Department of Alcohol and Other Drug Abuse Services ("DAODAS"), *Prevention, Intervention & Treatment: Treatment Services, at* http://www.daodas.state.sc.us/web/treatment.html 17

United States General Accounting Office, *ADMS Block Grant: Women's Set Aside Does Not Assure Drug Treatment for Pregnant Women* (1991). 19

Williams Obstetrics, (F. Cunningham et al. eds., 21st ed. 2001)..... 5, 6

Wisborg, K. et al., *Exposure to Tobacco Smoke in Utero and the Risk of Stillbirth and Death in the First Year of Life*, 154 Am. J. Epidemiology 322 (2001) 6

Woods, J. R., *Pregnancy Loss: Medical Therapeutics and Practical Considerations* (J. Esposito ed., Williams & Wilkins 1987)..... 9, 10

INTERESTS OF *AMICI CURIAE*[*]

Amici include national and South Carolina associations of physicians, nurses, counselors, social workers, and public health practitioners, as well as organizations with specific expertise in addressing stillbirths and pregnancy loss.[1] *Amici* consist of experts in the fields of maternal and neonatal health and share a collective interest in providing appropriate and effective care to women who suffer from the tragedy of stillbirth. Through this brief, *amici* seek to expose the substantial health risks that will likely result when courts depart from science, medical knowledge and established legal precedent in prosecuting, convicting and imprisoning women who have suffered a stillbirth for the crime of homicide by child abuse. Because of the intolerable risks to the well-being of both women and children unleashed by the South Carolina Supreme Court's decision in *State v. Regina D. McKnight*, 576 S.E. 2d 168 (2002), *amici* urge this Court to grant *certiorari* in order to undo the damage of this decision to medical practice and public health.

INTRODUCTION

A deeply splintered South Carolina Supreme Court undertook a dangerous and unprecedented departure from law, science and established medical practice when upholding the homicide conviction of Regina McKnight. The prosecution, conviction, and sentencing of Ms. McKnight for her stillbirth not only distorts the law, but contradicts the clear weight of available medical evidence, violates fundamental notions of public health, and undermines the physician-patient relationship. The *McKnight* decision creates two groups of women who suffer the misfortune of pregnancy loss: those who are alleged to have engaged in

---

[*] Both parties consent to the filing of this brief. No entity or counsel apart from those whose names appear on this Brief have contributed monetarily or substantively to its production. Sup. Ct. R. 37.6

[1] Descriptions of the *Amici* are set forth in the Appendix to this brief.

activities or have exposed themselves to situations that, according to "public knowledge", can cause fetal demise, and those women about whom no such allegation is made. By sanctioning this differentiation – heretofore unrecognized by law – and locating it in the State's criminal codes, the South Carolina Supreme Court's decision will undermine the provision of health care services in such a way that threatens the health and well-being of every mother, fetus and newborn child.

Tens of thousands of women suffer from stillbirths each year. In a substantial number of these cases, medical professionals are unable to provide parents with an explanation (beyond mere conjecture) of how or why the stillbirth occurred. As in the case of Regina McKnight, parents typically experience stillbirths as unexpected and undesired personal tragedies. Yet, by imposing "public knowledge" as a legal standard for determining criminal liability – and by deeming there to be "public knowledge" for a medical claim steadfastly discredited by a clear consensus of scientific researchers and unsupported by the record evidence in this case – the South Carolina Supreme Court in *McKnight* confers boundless discretion on prosecutors to investigate and punish women who suffer pregnancy losses. In so doing, the Court severely compromises accepted protocols of care for women who suffer stillbirths; namely providing medical treatment for the physical trauma accompanying fetal loss, and providing psychosocial support to alleviate often debilitating parental grief and guilt.

The *McKnight* decision, moreover, transforms prenatal and postnatal health care and social services professionals into agents of law enforcement by virtue of their mandatory reporting obligations under state law. As a result, the decision turns a fundamentally medical matter into a criminal justice issue. The likely harms to public health are hard to overstate: the *McKnight* decision makes a potential

prosecutorial target of *all* women in South Carolina who are unfortunate enough to suffer stillbirths.

Amicis' longstanding commitment to the care of pregnant women and their unborn fetuses gives rise to their concerns about the implications of the decision below. *Amici* in no way condone the non-medical use of drugs – including alcohol or tobacco – by either parent during pregnancy. Nor do *amici* contend that there are no health risks associated with illicit drug use during pregnancy. Although the medical literature unequivocally belies South Carolina's assertion that prenatal cocaine exposure caused the stillbirth experienced by Ms. McKnight, it does not indicate that such exposure is benign. Nonetheless, *amici* contend that the factual record and current state of medical science wholly fail to support any claim that Ms. McKnight's stillbirth was caused by the ingestion of cocaine. Instead, the factual record and medical science underscore two points, both of which illuminate the dangers of the *McKnight* precedent. First, medical factors *other than* cocaine are likely to have caused the stillbirth, and second, it is exceedingly difficult to reliably isolate, beyond a reasonable doubt, any one factor (or group of factors) as having caused the stillbirth.

Finally, if let stand, the *McKnight* decision will greatly erode the standard of care for pregnant women and stillbirth mothers. These women (particularly those most at risk for losing their pregnancies) will be deterred from accessing medical care, prenatal treatment and related services for fear of a criminal investigation and possible prosecution if they are unable to deliver a living and full-term child.

REASONS FOR GRANTING THE PETITION

I. Review Should Be Granted Because The McKnight Decision Threatens The Health of All Child-Bearing Women in South Carolina.

In *State v. McKnight*, a sharply divided South Carolina Supreme Court sanctioned the prosecution of women for homicide by child abuse when they suffer stillbirths after engaging in activities that are "well documented and **within the realm of public knowledge** . . . [to potentially] cause serious harm to the viable unborn child." 352 S.C. 635, 645, S.E. 2d 168, 173 (2003) (emphasis added). Notwithstanding the facts of the case, the South Carolina Supreme Court's holding in *McKnight* is in no way limited to the ingestion of illicit substances during pregnancy. The *McKnight* decision instead creates an untenable standard for punishing women who engage in *any* conduct, or who suffer from any number of "preventable" medical conditions that are commonly believed – whether accurately or not – to be harmful to a fetus. The sweeping breadth of liability is confirmed by South Carolina's law enforcement personnel[2] and threatens to turn many, if not most stillbirth mothers in South Carolina into potential targets for criminal investigation. This expansion of potential criminal liability, in turn, will almost certainly undermine the ability of health professionals to deliver appropriate care to women who suffer pregnancy loss.

A. Given the Numerous Acts, Omissions and Conditions that Can Precipitate Stillbirth, The McKnight Decision Casts A Wide Net of Potential Criminal Liability For Pregnant Women.

About 28,000 American women suffer from stillbirths each year,[3] an estimated 500 of whom are from South

---

[2] In comments to the media, Horry County Chief Prosecutor Greg Hembree declared his intent to use the *McKnight* decision to prosecute women "[e]ven if a legal substance is used, if we determine [they] are *medically responsible* for a child's demise." [emphasis added]. E. Gaston, *Conway Homicide Case Sets Precedent*, The Sun News (Myrtle Beach, SC) May 19, 2001, at A1.

[3] *See* Nat'l Ctr. for Health Statistics, Ctr. for Disease Control, *Births:*

Carolina.[4] As many as 20 to 30 percent of all pregnancies end in miscarriage or stillbirth.[5] A wide range of medical conditions, actions, omissions, and environmental factors are known to contribute to fetal death. Nevertheless, a small but significant number of pregnancies progress without apparent complication until something simply goes awry, resulting in unexplained pregnancy loss. These tragic and inexplicable outcomes account for approximately ten percent of all stillbirths.[6]

Fetal abnormalities account for 25 to 40 percent of fetal demise,[7] and include birth defects, chromosomal

---

Final Data for 2000, 50(5) National Vital Statistics Report 27 (2002) *at* http://www.cdc.gov/nchs/data/nvsr/nvsr50/50_05_01.pdf (stating number of births each year); Nat'l Ctr. for Health Statistics, Ctr. for Disease Control, *Table 23: Infant Mortality Rates, in Health, United States, 2002*, at 109 (2002) *available at* http://www.cdc.gov/nchs/data/hus/tables/2002/02hus023.pdf (stating annual rates of fetal death).

[4] *See e.g.*, Div. of Biostatics, S.C. Dept. of Health & Envtl. Control, *Table 52: Fetal Mortality and Fetal Mortality Rate by Race of Mother*, [1998] 1 Annual Vital Statistics Series 107.

[5] C. Malacrida, *Complicating Mourning: The Social Economy of Perinatal Death*, 9(4) Qualitative Health Research 504, 505 (July 1999). Pregnancy loss falls into two categories: miscarriage and stillbirth. Miscarriage describes pregnancy loss within the first 20 weeks of pregnancy and stillbirth generally refers to pregnancy loss that occurs after 20 weeks. L. Friedman, *A Woman Doctor's Guide to Miscarriage*, at xi-xii (Laurie Abkemeier ed., Hyperion 1996).

[6] *Williams Obstetrics* 1075 (F. Cunningham et al. eds., 21st ed. 2001). *See also*, M.A. Sims & K.A. Collins, *Fetal Death: A 10-Year Retrospective Study*, 22 Am. J. Forensic Med. & Pathology 261 (2001) ("Despite efforts to identify the etiological factors contributing to fetal death, a substantial portion of fetal deaths are still classified as unexplained intrauterine fetal demise."); SHARE Pregnancy & Loss Support, Inc., *Report on Stillbirth Workshop at the National Institute of Health* (April 2001) *at* http://nationalshareoffice.com/SBWkspReport.asp (noting that the cause for up to 50 percent of stillbirths may not be determinable).

[7] *Williams Obstetrics*, *supra*, at 1074 (referring to Cunningham and Hollier (1997)).

abnormalities, and various fetal infections (bacterial, viral and other).[8] Chromosomal abnormalities are discovered in as many as eight percent of all stillbirths.[9] Placental defects constitute 25 to 35 percent of fetal demise.[10] Maternal illness accounts for between five and ten percent of fetal demise and encompasses such conditions as trauma, sepsis, hypertensive disorders, syphilis, diabetes, lupus anticoagulant, anticardiolipin antibodies, and hereditary thrombophilia (serious edema of the fetus).[11] Most of these causes can be identified by specific pathological factors.

In addition, a wide range of conduct by pregnant women is commonly believed to cause significant harm to a fetus. Under the *McKnight* standard, each one of these acts (or omissions) is "within the realm of public knowledge" for increasing the risk of stillbirth and is now actionable. For example, a recent study indicates that women who smoke tobacco during pregnancy double their risk of delivering a stillborn child.[12] Many workplace environments are similarly known to present significant risks to fetal health. *See, e.g. Automobile Workers v. Johnson Controls*, 499 U.S. 187 (1991). Other factors also increase the likelihood of pregnancy loss. Becoming pregnant after the age of 35 carries with it a heightened risk, even when controlling for diabetes, hypertension, and other complications associated with increased maternal age.[13] Additionally, women who experience even a single stressful event during pregnancy are more than twice as likely to experience reproductive loss.[14]

---

[8] *Id.*

[9] *Id.* at 1076.

[10] *Williams Obstetrics*, *supra*, at 1074.

[11] *Id.* at 1074-75.

[12] K. Wisborg et al., *Exposure to Tobacco Smoke in Utero and the Risk of Stillbirth and Death in the First Year of Life,* 154 Am. J. Epidemiology 322, (2001).

[13] R. Fretts et al., *Increased Maternal Age and the Risk of Fetal Death*, 333(15) New Eng. J. Med. 953, 956 (1995).

[14] R. Neugebauer et al., *Association of Stressful Life Events With*

It is likewise well publicized through both the media and labeling that many over-the-counter[15] and prescription drugs can cause fetal death or serious fetal harm.[16] One particularly stark example is the use of the popular acne medication Accutane. Pregnant women who take this medication have a 25-35 percent increased chance of delivering a child with multiple major deformities in addition to an increased risk of miscarriage, stillbirth, or infant death[17] Although these risks are listed prominently on Accutane's label and have been reported in the news media,[18] nearly three out of 1,000 women between ages 15 and 44 use Accutane to improve their complexions.[19]

After *McKnight*, any pregnant South Carolinian who smokes cigarettes, is over 35, uses certain over-the-counter or prescription medications, or works in a factory where there is

---

Chromosomally Normal Spontaneous Abortion, 143 Am. J. Epidemiology 588 (1996).

[15] "Large doses of aspirin may result in delayed onset of labor, premature closure of the fetal ductus arteriosus . . . or neonatal bleeding." *The Merck Manual of Diagnosis and Therapy* 1859 (R. Berkow ed., 16th ed. 1992) [hereinafter *Merck Manual*].

[16] Myriad prescription medications are "publicly known" to cause severe birth defects. *See, e.g.*, K.L. Jones, *Smith's Recognizable Patterns of Human Malformation* 495, 504 (J. Fletcher ed., 5th ed. 1997) (**anticonvulsants** and **anticoagulants**); J.G. Bernstein, *Handbook of Drug Therapy in Psychiatry* 415 (2d ed. 1988) (*citing* G.E. Robinson et al., *The Rational Use of Psychotropic Drugs in Pregnancy and Postpartum*, 31 Can. J. Psychiatry 183 (1986) (**lithium and other mood-stabilizers**); *Physician's Desk Reference* 3391 (57th ed. 2003) (**antibacterials**); *Merck Manual*, *supra*, at 1859, 1861 (**thyroid medications** and **antihypertensive drugs**).

[17] Org. of Teratology Information Systems, *Accutane (Isotretinoin) and Pregnancy* (2002) *at* www.otispregnancy.org/pdf/accutane.pdf. Additionally, the risk of miscarriage for women who use accutane is possibly as high as 50%. *Id. See also* M.A. Honein et al., *Continued Occurance of Accutane-Exposed Pregnancies*, 64 Teratology 142 (2001).

[18] *See, e.g.*, E. Rafsoon, *What Price Beauty*, Boston Globe, April 27, 2003, Magazine, at 15 (explaining "why [Accutane] has become the most widely prescribed birth-defect-causing medicine in the United States.").

[19] M.A. Honein et al., *supra*, at 144.

a danger of exposure to hazardous waste, and suffers a miscarriage or stillbirth can face prosecution for homicide. And, as discussed below, not only does *McKnight* cast an impermissibly broad net of potential criminal liability on pregnant women, it saddles their health care providers with a duty of breathtaking scope and uncertain dimensions: to report stillbirths that the provider believes *may* have been caused by these same "publicly known" risks taken on the part of the mother.

B. The *McKnight* Decision Undermines Accepted Standards of Care for Treating Women Who Suffer Stillbirth.

Following stillbirth, parents, and particularly mothers, usually experience intense bereavement and grief.[20] Feelings of depression, guilt, anxiety, isolation, and bitterness are often heightened when fetal loss occurs late in pregnancy.[21] Grief is exacerbated by the physical and emotional strain stemming from birthing a dead child (or one that dies shortly after birth), as well as by the hormonal imbalances of pregnancy. Consequently, parents who suffer fetal loss often grieve with the same intensity as those who lose a close relative,[22] and need to engage in certain rites and rituals.[23]

---

[20] R. Neugebauer et al., *Major Depressive Disorder in the 6 Months After Miscarriage,* 277(5) JAMA, 383, 387 (1997); J. DeFrain et al., *The Psychosocial Effects of Miscarriage: Implications for Health Professionals*, 14(3) Fam. Sys. & Health 331, 335 (1996); L. Hammersley & C. Drinkwater, *The Prevention of Psychological Morbidity Following Perinatal Death*, 47 British Journal of General Practice 583 (September 1997).

[21] H. Janssen et al., *Controlled Prospective Study on the Mental Health of Women Following Pregnancy Loss*, 153 Am. J. Psychiatry 226 (February 1996).

[22] L. G. Peppers & R. J. Knapp, *Maternal Reactions to Involuntary Fetal/Infant Death*, 43 Psychiatry 155 (May 1980) (citing K. Kowalski & W. Bowes, *Parents' Response to a Stillborn Baby*, 8 Contemporary Obstetrics and Gynecology 53-57 (1976); P. Giles *Reactions of Women to Perinatal Death*, 10 Austl. & N. Z. J. Obstetrics & Gynecology 207

In this regard, the record reflects that Ms. McKnight responded to her stillbirth like many women who suffer this misfortune: she asked to and did hold her stillborn baby; she named the baby; she asked that photographs be taken; and she requested to be given a "memory certificate" with the baby's footprints and hospital bracelet. Ms. McKnight also sought solace from the hospital's chaplain.

The *McKnight* decision, however, upends all accepted medical standards for the care of women who suffer stillbirths. As with other momentous medical events, physicians and psychologists have developed treatment protocols to address the psychosocial difficulties that accompany stillbirth. Many women who miscarry or suffer stillbirth experience feelings of self-blame, guilt and/or shame. These emotions are heightened by the increased tendency for self-blame prompted by a growing body of popular literature,[24] warning labels, and general confidence in the advances of modern medicine, which create the false sense that "good mothers" have healthy pregnancies. As a result, women who suffer stillbirths or miscarriages inevitably re-live their entire pregnancy, searching for the event or events – the cup of coffee, the stress at work, or the strenuous exertion at home – to explain their loss and to blame themselves.

Addressing these feelings is critical to recovery and is a core concern of healthcare providers.[25] Recommended

---

(1970)).

[23] L. Layne, *Motherhood Lost: Cultural Dimensions of Miscarriage and Stillbirth in America*, 16(3) Women & Health 69 (1990).

[24] *See, e.g.*, A. Eisenberg et al., *What To Expect When You're Expecting* 54-57 (2d ed. 1996) (popular pregnancy advice book warning women to avoid, *inter alia*, changing a cat litter box, consuming unpasteurized cheese or undercooked meat, gardening without gloves, inhaling when handling household cleaning products, and ingesting caffeine).

[25] *See* J. R. Woods, *Pregnancy Loss: Medical Therapeutics and Practical Considerations* 64-65 (J. Esposito ed., Williams & Wilkins 1987). *See also*, Friedman, *supra*.

protocols involve medical and psychological care to address specific patient needs.[26] Post-partum contact by obstetricians and nurses, for example, is considered to be an essential part of caring for women who have suffered pregnancy loss.[27] One essential goal of treatment providers is to "creat[e] an atmosphere of unconditional acceptance and compassion."[28] Despite enormous achievements in health care and scientific understanding, health care workers addressing pregnancy loss must teach the sad truth that pregnancy outcome is never guaranteed, that pregnancy loss is not always preventable, and that the reasons for poor pregnancy outcomes are often elusive.

By contrast, the *McKnight* decision now requires medical personnel who learn of a stillbirth to make a critical decision as they meet the grieving parents: did the mother engage or not engage in conduct commonly known to affect pregnancy. If they believe that the woman was *not* engaging in such conduct she is offered sympathy, counseling, and professional support. If, by contrast, it is suspected by any law enforcement authority or medical official that the woman might have engaged in conduct that is "publicly known" to endanger fetuses – applying this new and amorphous medico-legal standard – the woman must become the subject of criminal interrogation, testing, and invasive physical examination for the purpose of investigating, prosecuting and incarcerating her for her pregnancy loss.

---

[26] C.R. Geerinck-Vercammen, *With a Positive Feeling: The Grief Process After Stillbirth in Relation to the Role of Professional Caregivers,* 87 Eur. J. Obstetrics & Gynecology and Reproductive Biology 119 (1999) (research in progress). *See also,* C.S.W. Rand et al., *Parental Behavior After Perinatal Death: Twelve Years of Observations*, 19 J. Psychosomatic Obstetrics & Gynecology 44 (1998) (discussing importance of being flexible in responding to parents' wishes about how to mourn and grieve).

[30] J. R. Woods, *supra*, at 111-131.

[28] K. Kluger-Bell, *Unspeakable Losses* 146 (New York, WW Norton & Co. 1998).

It is difficult to overstate the degree to which the *McKnight* decision distorts the provision of maternal health care. The decision shifts pregnancy loss from a medical and public health matter (occasioning treatment), to a potential criminal act (requiring forensic investigation and state sanctioned punishment). As a likely consequence of *McKnight*, therapy and support for many women who suffer stillbirths will be compromised and curtailed, if not withdrawn altogether, in the wake of law enforcement needs. Instead of receiving sympathy for the trauma they have experienced, stillbirth mothers will be met with suspicion by the health and social services professionals with whom they interact. As explained further below, this dramatic shift portends potentially devastating health consequences.

II. Review Should Be Granted Because There is No Reliable Medical Evidence That Ms. McKnight's Cocaine Use Caused Her Stillbirth.

A. The Record Fails to Support South Carolina's Claim that Cocaine Caused McKnight's Stillbirth.

The protocol for accurately determining the cause of fetal demise must take into account the many possible factors that might be responsible for the stillbirth. Isolating and identifying the potential causes of fetal demise can be quite difficult and is often unsuccessful. Such determinations require an interdisciplinary team of obstetricians, neonatologists, pathologists, and geneticists, employing an array of scientific procedures. The investigative process is typically one of exclusion; however, investigators are often left not with a single, clear explanation for fetal demise, but rather a series of clues and various alternative, possible causes. As observed by the Guidelines established by the College of American Pathologists, "although many conditions can be ruled out, it may be impossible to determine the actual cause of death in a fairly large number

of cases."[29] In fact, approximately ten percent of all fetal deaths remain *entirely* unexplained.[30]

Fetal autopsies are commonly performed. Such autopsies usually consist of both gross and microscopic evaluation of the stillborn fetus, the cord, membranes and placenta.[31] Measurements of crown-rump length, foot length and body weight,[32] and skeletal radiographs or xeroradiography also serve as diagnostic tools.[33] Specialists perform laboratory and diagnostic examinations of the mother to determine the existence of infections or maternal conditions that could have resulted in the stillbirth; review obstetric and family histories; and investigate pertinent information in the maternal and paternal pedigrees.[34]

These procedures were *not* followed in Ms. McKnight's case, where the overwhelming weight of the scientific evidence not only does *not* support the conclusion that cocaine caused Ms. McKnight's stillbirth, but affirmatively points to other non-cocaine-related explanations. Research published at the time of Ms. McKnight's trial indicated that only two complications could potentially be associated with prenatal cocaine exposure and stillbirths: placental abruption and premature rupture of the membrane.[35] Neither condition

---

[29] K.E. Bove & The Autopsy Comm. of the Coll. of Am. Pathologists, *Practice Guidelines for Autopsy Pathology*, 121 Archives Pathology & Laboratory Med. 368, 373 (1997).

[30] *See supra* note 6.

[31] Am. Acad. of Pediatrics & Am. Coll. of Obstetricians and Gynecologists, *Guidelines for Perinatal Care* 202 (4th ed. 1997).

[32] Bove et. al., *supra*, at 373.

[33] C. Curry & L.H. Honoré, *A Protocol for the Investigation of Pregnancy Loss*, 17 Clinics in Perinatology 723, 726 (1990).

[34] *Guidelines for Perinatal Care*, *supra*, at 202.

[35] A. Addis et al., *Fetal Effects of Cocaine: An Updated Meta-Analysis*, 15 Reprod. Toxicology 341, at 348-49, 354 (2001). *See also* N. Bingol et al., *Teratogenicity of Cocaine in Humans*, 110 J. Pediatrics 93, 94 (1987) (finding abruption placentae present in all stillbirths suffered by group of cocaine using women).

was present in this case. The fetal autopsy report fails to mention placental abruption, and neither of the State's pathologists testified that Ms. McKnight experienced this condition. Similarly, the State's pathologists, Ms. McKnight's medical records, and the autopsy report indicate no premature rupture of membranes. Furthermore, other fetal conditions that some researchers have found to be associated with *in utero* cocaine exposure, *e.g.*, reduced birth weight and congenital defects[36] (conditions that research has been unable to isolate from factors such as maternal exposure to alcohol, tobacco, or poverty) were also absent in this case.[37]

In light of the absence of any recognized indicia for cocaine-associated fetal demise, the State's claim that cocaine use *caused* Ms. McKnight's stillbirth must derive from a "presumptive diagnosis," or the elimination of alternative causes. The factual record in this case, however, undercuts this analysis. In particular, the autopsy report identifies chorioamnionitis (inflammation of the fetal membranes) and funisitis (inflammation of the umbilical cord) as two additional causes of fetal death. Ms. McKnight also was diagnosed with syphilis, suffered from hypothyroidism, was homeless, and (like many South Carolinians) smoked tobacco. Any one of these factors increases the risk of pregnancy loss; in combination, the risk is magnified.

Even though the full weight of medical evidence in this case points to a cause or causes for fetal demise *other than* cocaine exposure, the trial record shows that the State apparently halted its investigative inquiries after obtaining positive tests for cocaine metabolites. Because the State did

---

[36] Bingol et al., *supra*, at 94. *But see* D. Frank et al., *Growth, Development, and Behavior in Early Childhood Following Prenatal Cocaine Exposure: A Systematic Review*, 285 JAMA 1613 (2001).

[37] The State's pathologists testified that the organs of McKnight's fetus were normal, R. 176-77, 328:17-18, 340:14-15, and that it appeared to have developed without incident prior to the stillbirth, R. 325:9-10.

not consider, let alone rule out the other, proven risk factors for fetal demise present in Ms. McKnight's medical and social history, the most that can be said, on the basis of the State's investigation, is that there is *no* identifiable cause of the stillbirth.

The fact that a positive toxicology for cocaine coincides with a stillbirth simply does not establish causation, for medical or legal purposes. South Carolina's failure to adequately investigate the cause of Ms. McKnight's stillbirth – and the inaccuracy of its unsupported claim that cocaine was the cause – is underscored by two studies from the Medical University of South Carolina ("MUSC"). These studies highlight the difficulty in determining the cause of stillbirths, not to mention the near impossibility of concluding that cocaine can be its sole cause. In a ten-year retrospective (Jan. 1989 – December 1998) of pediatric toxicological deaths, not a single neonatal or fetal death was attributed to cocaine use, even in those cases where cocaine metabolites were present.[38] A second study focused on the 42 fetal deaths referred for autopsy to the Forensic Section of MUSC between 1990 and 1999.[39] In a full 29 percent of the fetal deaths examined, the cause of death could not be determined.[40] As with the previous study, all of the cocaine associated deaths were designated as "natural" or "undetermined," – *not* as homicides (as was done in Ms. McKnight's case). In short, in a large number of fetal deaths, forensic pathologists at MUSC were unable to establish causation, and even where cocaine was present, it was not listed as a primary cause of death. Against this backdrop, the State's assertion that cocaine caused Ms. McKnight's stillbirth appears to derive not from medical fact and

---

[38] *See* T.A. Campbell & K.A. Collins, *Pediatric Toxicologic Deaths: A 10 Year Retrospective Study*, 22 Am. J. Forensic Med. & Pathology 184 (2001).

[39] *See* Sims, *supra*.

[40] *Id.* at 263.

scientific method, but rather prosecutorial overreaching.

B. There Can Be No "Public Knowledge" of the Effects of Prenatal Cocaine Ingestion When Medical and Scientific Research is Inconclusive On This Point.

In finding Ms. McKnight criminally culpable in the homicide of her fetus, the *McKnight* majority reasons that it is appropriate to expect adult women to be aware of the dangers to fetal health that can result from ingesting cocaine during pregnancy.[41] That Court's expectation in this regard is unfounded. Indeed, the scientific community that specializes in researching the teratogenic effects of cocaine is itself currently unable to reach consensus about the nature of the harms posed by prenatal cocaine exposure or the likelihood those harms will materialize when cocaine is ingested during pregnancy. Nevertheless, according to the South Carolina Supreme Court, the general public is expected to know that which the world's most credentialed experts are unwilling to pronounce: that maternal cocaine use by itself poses unique and heightened dangers of fetal death.

Contemporary research on the developmental impact of cocaine use during pregnancy has debunked the myth that mere exposure to cocaine causes certain fetal harms. In advance of Ms. McKnight's trial the Journal of the American Medical Association ("JAMA"), published a comprehensive and authoritative analysis of medical research assessing the relationship between maternal cocaine use during pregnancy and adverse developmental consequences for the fetus and child.[42] JAMA researchers identified all seventy-four English-language studies of the effects of *in utero* cocaine

---

[41] Writing for the majority in *McKnight*, Justice Waller states "Given the fact that it is public knowledge that usage of cocaine is potentially fatal, we find the fact that McKnight took cocaine knowing she was pregnant was sufficient evidence to submit to the jury on whether she acted with extreme indifference to her child's life." *McKnight*, 352 S.C. at 646.

[42] *See* Frank, *supra*.

exposure[43] and then reviewed those which complied with accepted scientific practices. The researchers concluded that "there is no convincing evidence that prenatal cocaine exposure is associated with any developmental toxicity different in severity, scope, or kind from the sequelae of many other risk factors."[44] In light of these findings, the JAMA researchers condemn as "irrational[]" policies that selectively "demonize" *in utero* cocaine exposure or target pregnant cocaine users for special criminal sanction.[45] Similarly, there are no methodologically sound studies that prove prenatal cocaine exposure significantly increases the risk of stillbirth.

None of this is to say that prenatal cocaine exposure is benign. While current studies are unable to link cocaine use to adverse fetal developments, neither do they exclude cocaine as a potential fetotoxin.[46] Without doubt, more research is needed. But it is precisely this fact that exposes the injustice and irrationality of the *McKnight* decision. Where science has yet to speak with causal assurance, the Court below found sufficient *mens rea* to convict Ms. McKnight of homicide. Whether one looks to the evidence in the record that fails to support an inference of cocaine-induced death (and affirmatively points to other likely causes) or one consults the scientific literature, the South Carolina Supreme Court's ruling is simply untenable.

III. Review Should Be Granted Because the McKnight Decision Will Deter Women From Obtaining Adequate Prenatal Health Care.

Amici are firmly convinced that the *McKnight* decision will undermine the quality and accessibility of health care for

---

[43] *Id.* at 1614.
[44] *Id.* at 1621, 1624.
[45] *Id.* at 1621.
[46] *See, e.g.*, I. Morild & M. Stajc, *Cocaine and Fetal Death*, 47 Forensic Sci. Int'l 181 (1990).

many women who are pregnant or recovering from delivery, miscarriage or stillbirth.[47] Trust and confidence have long defined the relationship between a patient and her caregiver. By sanctioning law enforcement's intrusion into the sphere of prenatal care and post-stillbirth treatment, however, the McKnight decision guts the traditional expectations of patient candor and medical confidentiality. In so doing, the decision endangers the future health and well-being of women and their fetuses, particularly mothers who suffer from drug dependency.[48]

Many medical conditions or forms of conduct that can affect the course of pregnancy for the mother and/or fetus, including drug use, are not readily apparent to treatment providers.[49] Thus, the ability to provide appropriate and timely medical care rests, in large part, on the ability of treatment providers to elicit from patients medical and social information that will inform the diagnosis and proper course of treatment to promote maternal and fetal health.

---

[47] South Carolina ranks last among the states in spending on programs that address the effects of alcohol and drug abuse. *See* K. Baca, *South Carolina Spends the Least on Substance Abuse Prevention*, Associated Press State and Local Wire, Jan 29, 2001 (noting that in 2000, the state was only "able to treat about 52,000 of the 310,000 South Carolinians identified as having a substance abuse problem.") (citing Nat'l Ctr. on Addiction and Substance Abuse, *Shoveling Up: The Impact of Substance Abuse on State Budgets*, *available at* http://www.casacolumbia.org/usr_doc/47299a.pdf).

[48] South Carolina's Department of Alcohol and Other Drug Abuse Services forthrightly acknowledges that "[u]nfortunately . . . there are women who do not seek treatment, primarily out of fear; fear of what others might say; fear of prosecution; fear of losing their children; fear of losing their jobs; and fear of losing the support of their families." South Carolina Dept. of Alcohol and Other Drug Abuse Services ("DAODAS"), *Prevention, Intervention & Treatment: Treatment Services, at* http://www.daodas.state.sc.us/web/treatment.html, (last visited July 23, 2003).

[49] I. Chasnoff, *Drug Use in Pregnancy: Parameters of Risk*, 35 Pediatric Clinics N. Am. 1403, 1410 (1988).

The sanctity of the health care provider-patient relationship is particularly critical where the treatment of pregnant drug using women is involved, because "[t]he promise of confidentiality encourages patients to disclose sensitive subjects to a physician without fear that an embarrassing condition will be revealed to unauthorized people."[50] A strong health provider-patient relationship promotes the integration of substance abuse treatment with primary or prenatal care resulting in healthier babies.[51] In recognition of this medical reality courts have long viewed the obligation of confidentiality as not solely a matter of principle, but a necessary precondition of the patient-care provider relationship.[52]

McKnight, however, eviscerates fundamental tenets of medical confidentiality. Any pregnant South Carolinian who now confides in her health care provider that she has engaged in any activity that is "publicly known" to cause harm to her fetus, places herself at risk of becoming the target of criminal investigation for homicide if she later suffers a stillbirth.[53]

---

[50] R. Arnold et al., *Medical Ethics and Doctor/Patient Communication, in The Medical Interview: Clinical Care, Education and Research* 365 (M. Lipkin, Jr. et al. eds., 1995) (citing W. Winslade, *Confidentiality, in Encyclopedia of Bioethics* (W. T. Reich ed.)). *See also*, S. H. Ebrahim & J. Gfroerer, *Pregnancy-Related Substances Use in the United States During 1996-1998*, 101(2) Obstetrics and Gynecology 374 (February 2003) ("Pregnancy-or childbirth-related contact of women with the health care system gives health care providers a unique opportunity to access women who use substances and possibly their partners to facilitate substance abuse treatment, the benefits of which extend to their infants and future pregnancies.").

[51] M.A. Armstrong, et al., *Perinatal Substance Abuse Intervention in Obstetric Clinics Decreases Adverse Neonatal Outcomes*, 23 J. Perinatology 3 (2003).

[52] *See Jaffee v. Redmond*, 518 U.S. 1, 10 (1997) ("the mere possibility of disclosure may impede development of the confidential relationship necessary for successful treatment").

[53] It appears likely that the *McKnight* decision may well open the floodgates to a rash of like prosecutions. In May, 2003, South Carolina

Clinicians and researchers warn that the mere suggestion that obtaining health care could lead to criminal sanctions will deter many pregnant women from seeking critical prenatal care. As the Board of Trustees of the American Medical Association states: where such danger of criminal sanctions exists, "[p]regnant women will be likely to avoid seeking prenatal or other medical care for fear that their physicians' knowledge of substance abuse or other potentially harmful behavior could result in a jail sentence rather than proper medical treatment."[54] The threat that a stillbirth could result in a *homicide* conviction (and a lengthy sentence) simply exacerbates such fears and will hinder access to vital medical care and substance abuse services for South Carolinian women. Virtually every other major public health and medical organization to address this issue has also inveighed against the path taken by the *McKnight* majority and has warned about the harmful consequences that will result.[55]

---

prosecutors decided to charge Angela Shannette Kennedy with homicide for a stillbirth that she experienced on December 11, 1998. *See* T. Langhorne, *Solicitor: Woman's Cocaine Use Killed Fetus*, Spartanburg Herald Journal, May 3, 2003.

[54] Am. Med. Ass'n, *Legal Intervention During Pregnancy*, 264 JAMA 2663, 2667 (1990). *See also id.* at 2670 (reporting AMA resolution that "[c]riminal sanctions or civil liability for harmful behavior by the pregnant woman toward her fetus are inappropriate").

[55] This Court recently recognized that there is "a near consensus in the medical community that programs of the sort at issue, by discouraging women who use drugs from seeking prenatal care, harm, rather than advance, the cause of prenatal health." *Ferguson v. City of Charleston, South Carolina*, 532 U.S. 67 at 83, n.23 (2001). *See also* Bd. of Directors, Am. Soc'y of Addiction Med., *Public Policy Statement on Chemically Dependent Women and Pregnancy* (September 25, 1989); Comm. on Substance Abuse, Am. Acad. of Pediatrics, *Drug-Exposed Infants*, 86 Pediatrics 639, 642 (1990); March of Dimes, *Statement on Maternal Drug Abuse* 1 (December 1990); Nat'l Ass'n of Pub. Child Welfare Administrators, *Guiding Principles for Working with Substance-Abusing Families and Drug-Exposed Children: The Child Welfare Response* (January 1991); Am. Psychiatric Ass'n, *Care of Pregnant and*

The criminal investigation and possible prosecution of women like Ms. McKnight sends a perilous message to pregnant addicts *not* to seek prenatal care or drug treatment, *not* to confide their addiction to health care professionals, and *not* to give birth in hospitals – or not to carry the fetus to term. Accordingly, such prosecutions fail to serve any legitimate purpose, and in fact undermine South Carolina's objectives of promoting maternal and fetal health. Instead of saving lives, the McKnight decision prosecution is likely to endanger them.

CONCLUSION

Because the prosecution and conviction of Regina McKnight for homicide by child abuse is not supported as a matter of science, inappropriate as a matter of public health, and unfounded as a matter of law *amici curiae* respectfully request this Honorable Court to grant the petition for *certiorari*.

Respectfully submitted,

JUDITH K. APPEL
DANIEL N. ABRAHAMSON
Counsel of Record
Drug Policy Alliance
717 Washington Street
Oakland, CA 94607
(510) 208-7711

Attorneys for *Amici Curiae*

Newly Delivered Women Addicts: Position Statement (March 2001); Nat'l Council on Alcoholism and Drug Dependence, *Women, Alcohol, Other Drugs and Pregnancy* (1990); and Am. Nurses Ass'n, *Position Statement* (April 5, 1992).

APPENDIX

DESCRIPTIONS OF *AMICI CURIAE*

Amicus Curiae American Public Health Association ("APHA") is a national organization devoted to promoting and protecting personal and environmental health. Founded in 1872, APHA is the largest public health organization in the world, representing over 50,000 public health professionals. APHA also represents all disciplines and specialties in public health, including maternal and child health and substance abuse. APHA strives to improve public health for everyone by proposing solutions based on research, setting public health practice standards, and working closely with national and international health agencies.

Amicus Curiae American Nurses Association ("ANA") is a professional organization representing over 2.2 million registered nurses. ANA is committed to ensuring the availability and accessibility of health care services. It believes that access to maternal and child health services is critical to preventing disease and promoting the well-being of parents and children. Accordingly, ANA opposes laws, policies and practices, like the prosecution of Ms. McKnight, that unnecessarily erect barriers to prenatal care and related health services.

Amicus Curiae The American Psychiatric Association ("APA"), with roughly 40,000 members, is the nation's leading organization of physicians specializing in psychiatry, a field regularly concerned with substance abuse and dependence. The APA opposes criminal prosecutions based on use of substances during pregnancy. By deterring prenatal care and addiction treatment, such prosecutions impairs the health and safety interests that are the central concern of the APA's members.

Amicus Curiae National Stillbirth Society is an organization devoted to advocating on behalf of the more than 26,000 American mothers who suffer a stillbirth each year. As a misunderstood, under-discussed and under-researched medial condition, its mission is to promote greater stillbirth awareness, research and reform. The National Stillbirth Society supports this brief because it believes that contrary to popular theories, stillbirth is a random event that strikes all categories of mothers and is generally never caused by something the mother did or did not do. Although the National Stillbirth Society does not condone illicit drug use by any person at any time, it believes that the circumstances of Ms. McKnight's situation does not suggest a crime, but that her baby was one of the 15,000 stillbirths each year for which no cause can be attributed.

Amicus Curiae National Association of Social Workers, Inc. ("NASW") is the world's largest association of professional social workers with over 155,000 members in fifty-five chapters throughout the United States and abroad. Founded in 1955, NASW is devoted to promoting the quality and effectiveness of social work practice, advancing the knowledge base of the social work profession, and improving the quality of life through social work expertise.

Amicus Curiae South Carolina Medical Association ("SCMA") is the primary professional association for individuals licensed to practice medicine in South Carolina. The SCMA has over 5,500 members representing all medical specialties that provide medical services to the citizens of the state. The SCMA's primary mission is to foster high ethical and clinical standards for the practice of medicine in South Carolina.

Amicus Curiae American Society of Addiction Medicine ("ASAM") is devoted to increasing access to and

improving the quality of addiction treatment. ASAM members are physicians from all medical specialties and sub-specialties. They are engaged in private practice, serve as corporate medical directors, work in group practice or other clinical settings, and are also involved in research and education. Through its conferences, continuing medical education courses, and publications (including the textbook, *Principles of Addiction Medicine (Third Edition, 2002))*, ASAM actively educates the medical community and the public about addiction disorders and diseases, treatment guidelines, and practice parameters in the field of addiction medicine. ASAM staunchly opposes policies that create obstacles to or deter persons from receiving substance abuse treatment and counseling.

Amicus Curiae National Association of Nurse Practitioners in Women's Health ("NPWH"), formerly National Association of Nurse Practitioners in Reproductive Health, is a professional organization founded in 1980 that represents nurse practitioners who provide care to women in both the primary care setting and in women's health specialty practices. The U.S. Department of Education recognizes NPWH as the designated organization for the accreditation of women's health nurse practitioner programs. NPWH is committed to assuring access of quality health care to women of all ages by nurse practitioners, and to protecting a woman's right to determine the course of her own health care. NPWH programs and publications offer special expertise in reproductive health care and nurse practitioner issues.

Amicus Curiae Midwives Alliance of North America ("MANA") is an organization of North American midwives and their advocates. MANA's mission is to provide a nurturing and cooperative forum among midwives by promoting communication between midwives and other

health care professionals, creating guidelines for the education of midwives, supporting research that advocates midwifery as a quality health care option, and educating the public on midwifery as a medical practice.

Amicus Curiae South Carolina Primary Health Care Association ("SCPHCA") was incorporated in 1979 to provide health care services to medically underserved areas of South Carolina. As an advocate for those who do not have access to basic health services, SCPHCA's mission is to ensure the continued growth of community based programs and centers that provide primary care for persons most in need. SCPHCA- affiliated centers for community health, mental hygiene, migrant health, and care for the homeless are an integral part of the state's overall health care system and provide services to more than 200,000 patients each year. In many communities in South Carolina, these centers are the only available health care providers. SCPHCA membership offers opportunities to network with other persons, agencies, governmental officials, and health centers in developing strategies, policies, and programs that lead to the effective delivery of primary health care.

Amicus Curiae Physician Leadership on National Drug Policy ("PLNDP") is a group of distinguished physicians from a variety of medical specialties. PLNDP's members find common ground in their belief that it is time for a new emphasis in our national drug policy by substantially refocusing our investment into the prevention and treatment of harmful drug use. PLNDP members further believe that criminal sanctions should not interfere with those who have addictive disease in accessing medical services and addiction treatment.

Amicus Curiae NAADAC-The Association for Addiction Professionals ("NAADAC") is the nation's largest

organization of alcohol and drug counselors, with over 14,000 members. NAADAC's members have special expertise in the substance abuse treatment needs of pregnant women. NAADAC joins this brief because it is deeply concerned that the decision below, if permitted to stand, will undermine the quality of care that South Carolina substance abuse professionals can provide pregnant patients, and will deter these women from seeking these essential services.

Amicus Curiae Association of Maternal and Child Health Programs ("AMCHP") is a nonprofit organization that promotes national and state programs and policies on behalf of maternal and child health. AMCHP provides expert technical assistance on reproductive health, adolescent and school health, teen pregnancy prevention, HIV, tobacco control and smoking cessation, immunization, children with special health care needs, perinatal and women's health, data and assessment, service delivery, and other health related issues. AMCHP also represents state public health leaders and others working to improve female reproductive health, adolescents, and their families.

Amicus Curiae Black Women's Health Imperative, formerly the National Black Women's Health Project, is a leading African American health education, research, advocacy and leadership development institution. Founded in 1983, it promotes the empowerment of African American women as educated health care consumers and is a strong voice for the improved health status of African American women. Black Women's Health Imperative is the only national organization devoted solely to the health of the nation's 19 million Black women and girls. The organization's aim is to be the nexus for trusted health information for Black women, as well as the focal point on Black women's health issues for women's organizations, health care providers, researchers, policy makers, the media,

health industries and everyone committed to closing the health gaps that exist for Black women in America.

Amicus Curiae Association of Reproductive Health Professionals ("ARHP") is a national non-profit, medical association for leaders in the field of reproductive health. Founded in 1963, ARHP is comprised of physicians, nurse practitioners, clinicians, pharmacists, and researchers who serve as important resources for health care professionals, patients, legislators, other professionals, and the public at large. ARHP believes that the prosecution of Regina McKnight undermines the quality of health care provided to pregnant and parenting women in South Carolina by threatening punishment -- rather than providing treatment -- for the medical issue of substance use during pregnancy.

Amicus Curiae National Council on Alcoholism and Drug Dependence ("NCADD"), with its nationwide network of affiliates, provides education, information, and hope in the fight against the chronic diseases of alcoholism and other drug addictions. Founded in 1944, NCADD has historically offered confidential assessment and referral services for alcoholics and other drug addicts seeking treatment. NCADD opposes the prosecution of Regina McKnight because of the chilling effect it will have on pregnant women who are drug dependent, which makes them less likely to receive treatment. In 1990, the NCADD Board of Directors adopted a policy statement on "Women, Alcohol, Other Drugs and Pregnancy," recommending that "[s]tates should avoid measures which would define alcohol and other drug use during pregnancy as prenatal child abuse and should avoid prosecutions, jailing or other punitive measures which would serve to discourage women from seeking health care services."

Amicus Curiae South Carolina Nurses Association ("SCNA") is a professional organization that represents registered nurses in South Carolina. SCNA strongly supports health care for a number of vulnerable populations, and believes patients must be secure in the knowledge that their treatment providers are wholly devoted to treatment and are not doubling as agents of law enforcement. In 1991, SCNA issued a position statement opposing the criminal prosecution of women for drug use while pregnant. SCNA continues to believe that breaching patient confidentiality and the threat of criminal prosecution deters pregnant women who are drug dependent from seeking and obtaining prenatal care.

Amicus Curiae South Carolina Association of Alcoholism and Drug Abuse Counselors ("SCAADAC") is the association of alcohol and drug abuse counselors employed throughout South Carolina in both the public and private sectors. Founded in 1988, SCAADAC currently has over 500 members. SCAADAC is concerned with the welfare of persons who are chemically dependent and provides public education on addictive illnesses as well as the treatment and prevention thereof. SCAADAC members have reason to believe that pregnant women who require alcohol and/or drug treatment are being deterred from seeking treatment for fear of prosecution in the wake of the *Whitner* and *McKnight* decisions by the South Carolina Supreme Court. Since the *Whitner* decision in 1997, at least two treatment programs in the Columbia area of South Carolina that give priority to pregnant women have already experienced precipitous drops in their admissions. In light of these and other observations, SCAADAC is deeply concerned that pregnant women who require alcohol and/or drug treatment are being deterred from seeking treatment for fear of prosecution.

Amicus Curiae Citizens for Midwifery ("CfM") is a national, non-profit, and consumer-based group that promotes maternal and child health through advocating the Midwives Model of Care and seeks to have these practices recognized as an accepted standard of care for childbearing mothers. In focusing on the normalcy of childbirth and the uniqueness of each childbearing woman and family, this model includes monitoring the physical, psychological, and social well-being of childbearing mothers, providing pregnant women with individualized prenatal care and hands-on assistance during labor and delivery, minimizing technological interventions, and identifying women who require obstetrical attention. As an organization, CfM also provides information on midwifery and childbirth issues, encourages and provides guidance for midwifery advocacy, and represents consumer interests regarding midwifery and maternity care.

Amicus Curiae The Hygeia Foundation, Inc is a non-profit organization focused on reducing healthcare disparities through providing access to its internet-based resources on pregnancy loss and maternal and child health. By maintaining a growing database of over 23,000 registered members, The Hygeia Foundation fosters a global community of education, solace, and communication for all individuals who need this information and support. The Hygeia Foundation believes that this case represents a serious threat to its, and similarly situated organizations', efforts to address the impact and trauma of pregnancy loss on parents, their families and their medical providers.

Amicus Curiae Institute for Health and Recovery ("IHR") is a non-profit organization dedicated to developing a comprehensive continuum of care for families affected by substance abuse, with a particular emphasis on women and their children. IHR focuses on prevention, intervention,

treatment, and the integration of gender-specific services within substance abuse prevention and treatment. With over 10 years of experience in working with pregnant women who use drugs, IHR members have firsthand experience with the fears pregnant substance abusing women have regarding prosecution, causing them to be reluctant in seeking prenatal care and substance abuse treatment.

Amicus Curiae American Academy of Addiction Psychiatry ("AAAP") is an international professional membership organization made up of practicing psychiatrists, university faculty, medical students and other related professionals. Founded in 1985, it currently represents approximately 1,000 members in the United States and around the world. AAAP is devoted to promoting access to the highest quality treatment for all who need it by providing continuing education for addiction professionals, disseminating new information in the field of addiction psychiatry, and encouraging research on the etiology, prevention, identification, and treatment of addictions. AAAP opposes the prosecution of Regina McKnight based on the belief that the disclosure of a pregnant woman's drug use to law enforcement for use in criminal prosecutions will undermine prenatal care, discourage many women from seeking substance abuse treatment, and damage the medical provider-patient relationship that is founded on principles of confidentiality.

Amicus Curiae Global Lawyers and Physicians ("GLP") is a non-profit non-governmental organization that focuses on health issues and human rights. Founded in 1996, GLP was formed to reinvigorate the collaboration of the legal, medical and public health professions in protecting the human rights and dignity of all persons. GLP's mission is to implement the health-related provisions of the Universal Declaration of Human Rights and the Covenants on Civil and

Political Rights and Economic, Social, and Cultural Rights, with a focus on health and human rights, patient rights, and human experimentation.

Amicus Curiae Physicians for Reproductive Choice and Health ("PRCH") is a national, non-profit organization committed to ensuring that all people have the knowledge, access to quality services, and freedom to make their own reproductive health decisions. PRCH is also committed to educating physicians about reproductive health issues. Founded in 1992, PRCH is comprised of over 2,800 physicians from various medical specialties while also representing over 2,200 supporting members. PRCH believes that doctors should honor and protect their commitment to the integrity and confidentiality of the doctor-patient relationship, and opposes policies and practices that weaken the trust between patients and health care providers.

Amicus Curiae Doctors of the World-USA ("DOW-USA") is an independent, non-profit, non-sectarian organization working at the intersection of health and human rights. Founded in the United States in 1990 by the late Dr. Jonathan Mann, Doctors of the World is the autonomous U.S. affiliate of Médecins du Monde, the French health and human rights organization. Doctors of the World is part of an international network, whose aim is to provide the world's most vulnerable populations with medical assistance. DOW-USA is dedicated to creating sustainable programs that promote and protect health and human rights in the United States and by providing medical and public health assistance and mentoring to those in greatest need and, within the framework of health care services, contributing to the processes of peace, reconciliation, and human rights.

Amicus Curiae Women's Law Project ("WLP") is a non-profit public interest law firm located in Philadelphia,

Pennsylvania dedicated to advancing the legal and economic status of women and their families. Since its founding in 1974, the WLP has worked to abolish sex discrimination in our laws and institutions through litigation, public policy advocacy, and individual counseling. WLP has a strong interest in stopping states from addressing problems of addiction by punishing women for carrying their pregnancies to term.

Amicus Curiae Finding Common Ground ("FCG") is a collaborative effort between researchers at Columbia University's Mailman School of Public Health and Boston Medical Center. The project is dedicated to developing a public health agenda that integrates the healthcare needs and rights of women and children, and to reframing public discourse so that advocacy for one is seen to benefit both. FCG research focuses on poverty, domestic violence, the impact of welfare reform on reproductive health, and race and ethnicity in regard to the health of women and children.